

## *ATTACHMENT 8. QUALITY ASSURANCE*

The City of Modesto will implement multiple Quality Assurance (QA) and Quality Control (QC) protocols throughout the proposed project to ensure both that the data to be used in the analyses are accurate and reliable, and that the analyses themselves are numerically correct and scientifically sound. These QA and QC protocols will include the following:

✓ **Procedural assurances, such as review processes for quality of reports, data and analyses**

- Peer review of data assessments.
- Review of documents (both internally by consultant and externally by STRGBA members and other stakeholders) prior to completion and distribution.
- Use of standardized methodologies where appropriate (i.e. in preparing geologic cross-sections).
- Use of public process and involvement of the STRGBA and participating stakeholders as quality control check on information provided for the Modesto Subbasin.
- QA/QC protocols for groundwater data acquisition, interpretation, and entry (Tasks 2 and 5) include:
  - Graphical verification of data through examination of outliers in time series data, and
  - Map-based verification of data through examination of outliers in contoured data.

For all review processes, comments, corrections and additional input will be summarized in a Comment Log. The log will indicate where comments have been incorporated into draft documents, where no comments or edits are required (informational purposes only), and where comments were not incorporated into the draft documents and why. Additionally, a minimum of two weeks will be provided for the review of administrative draft documents, four weeks will be provided for the review of public draft documents, and a minimum of one week will be provided for the review of final draft documents.

✓ **Personnel qualifications**

Licensed personnel (professional engineers and geologists registered in the State of California) will be used where appropriate.

- Review by a California-registered Professional Geologist for all geological information (e.g. Tasks 2 and 5) and either a Professional Geologist or Professional Engineer for all other information.
- Quality control reviews of data entered into databases as part of Task 2, including comparison of database output to original data records (e.g. boring logs).

✓ **Model Calibration (if water balance update is prepared)**

- A numerical model of the Modesto Subbasin has been prepared by the U.S. Geological Survey. If this model is used as part of the project analysis, the calibrated model will be utilized.
- A groundwater balance may be prepared as part of Task 5 (Aquifer Hydrogeologic Characterization and Aquifer Recharge Analysis). If a water balance is prepared, the results will be evaluated against the calibrated numerical groundwater model described above and against actual data to enhance the accuracy of the results.